

Application No.: 10/635,413

Docket No.: JCLA11963

**REMARKS****I. Present Status of the Application**

The Office Action objected to the drawings. The Office Action rejected, under 35 U.S.C. § 102(b), claims 1-6 as being anticipated by SAM Manual, claims 1-6 as being anticipated by Yoshida et al. (US 5,803,993), and claim 1 as being anticipated by Shimuzu et al. (US 5,913,633). The Office Action further rejected, under 35 U.S.C. § 103(a), claim 7 as being unpatentable over any one of SAE Manual, Yoshida et al. and Shimuzu et al., and claims 1-14 as being unpatentable over Niebling et al. (US 5,725,285) in view of SAE Manual.

In this response, Applicant has amended the specification, the drawings, and claims 1, 2 and 7. New claims 15-17 are added. After entry, claims 1-17 remain pending in the present application. Claim 1 is amended to further define that the hardened area is formed "locally" in the bottom portion of the mouth portion, the support of which can be found, for example, in specification, paragraph [0042], lines 1-2. Claim 7 is also defined by incorporating the limitation of the hardened area formed locally in the bottom portion. Applicants believe that the foregoing amendments do not introduce new matter. Thus, reconsideration of those claims is respectfully requested.

**II. Response to Objections and Rejections****A. Objections to the drawings**

The Office Action, at page 2, objected to the drawings. The Examiner indicated that Figs. 5 and 6 should be designated by a legend "Prior Art," and that the reference numeral 3 in Figs. 5 and 6 is reused to identify a modification of such part in the drawings of the disclosed invention (Figs. 1 and 2).

In accordance with the Examiner's comments, Applicants have made corresponding drawing corrections by adding the legend "Prior Art," and changing the numeral "3" to "3b" in Figs. 5 and 6. In addition, Applicants have amended the specification accordingly. Therefore, Applicants respectfully submit that the objection has been overcome and should be withdrawn.

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**B. Rejections under 35 U.S.C. § 102(b)**

The Office Action, at pages 2-3, rejected under 35 U.S.C. § 102(b), claims 1-6 as being anticipated by SAM Manual, claims 1-6 as being anticipated by Yoshida et al. (US 5,803,993), and claim 1 as being anticipated by Shimizu et al. (US 5,913,633). Applicants respectfully traverse the rejection as applied to the amended claims for at least the reasons set forth below.

To anticipate a claim, the prior art reference must teach each and every element of the claim. M.P.E.P. § 2131.

The independent claim 1, as amended, recites a constant velocity universal joint comprising an outer joint member, wherein an induction hardened area is formed locally in the bottom portion of the mouth portion of the outer joint member.

However, none of SAM Manual, Yoshida et al., and Shimizu et al. teaches the foregoing claimed feature. SAM Manual just very generally mentions a surface of a outer race hardened to a typical Rc60 (page 149, column 2), it does not teach any specific locations to form the hardened area and definitely does not teach or suggest forming an induction hardened area locally in the bottom portion of the mouth portion of the outer joint member. Yoshida et al. teach that a hardened area is formed at the serration part 21 and a part ranging from the serration 21 to the mouth joint part 22, rather than the bottom portion of the mouth portion, of the outer joint member (col. 2, lines 15-20; col. 12, lines 30-33; Fig. 2). Shimizu et al. teach that a hardened area is formed in a polygonal surface or a serrated surface of hole 4 (surface 8 in Figs. 2A and 4A or surface 10 in Fig. 3A; col. 2, lines 19-21 and 54-56). In other words, the hardened area in Shimizu is formed on the sidewalls of hole 4, rather than in the bottom portion of the bowl-shaped mouth portion, in addition, these surfaces are parallel with, rather than perpendicular to, the axis of the stem portion.

Therefore, the cited references do not anticipate claim 1, as amended, since the references do not disclose each and every element of the claim. Consequently, cited references do not anticipate dependent claims 2-6 for at least the same reasons. In addition, these dependent claims contain features that further distinguish over the cited references.

For example, the amended claim 2 recites "an induction hardened area is formed in a base portion of said stem portion, and an unhardened area remains sandwiched between the induction hardened area in said base portion and that in the bottom portion of said mouth portion". None

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of the cited references teaches or suggests an unhardened area sandwiched between a hardened area in the base portion and a hardened area in the bottom portion.

For at least the foregoing reasons, Applicants respectfully submit that the grounds of rejection have been addressed and the rejection has been overcome. Reconsideration and withdrawal of the rejection to claims 1-6 is respectfully requested.

**C. Rejections under 35 U.S.C. § 103(a)**

The Office Action, at pages 35, rejected under 35 U.S.C. § 103(a), claim 7 as being unpatentable over any one of SAE Manual, Yoshida et al. and Shimuzu et al, and claims 1-14 as being unpatentable over Niebling et al. (US 5,725,285) in view of SAE Manual. Applicants respectfully traverse the rejection as applied to the amended claims for at least the reasons set forth below.

To establish prima facie obviousness of a claimed invention, all the claim limitation must be taught or suggested by the prior art. M.P.E.P. § 2143.

The independent claims 1 and 7, as amended, recite a constant velocity universal joint comprising an outer joint member, wherein an induction hardened area is formed locally in the bottom portion of the mouth portion of the outer joint member.

As discussed above, none of SAM Manual, Yoshida et al., and Shimuzu et al. teaches this feature. Niebling et al. also fail to teach the foregoing claimed feature. Therefore, even if they were combined as proposed, the combination would still fail to include all the elements of the present invention as defined in claims 1 and 7.

For the reasons discussed above, claims 1 and 7 are not obvious over the prior art references. Note that claims 2-6 and 8-14 are dependent on the base claim 1 or 7. Thus, for at least the same reasons, claims 2-6 and 8-14 are not obvious over the prior art references either.

Accordingly, for at least the foregoing reasons, Applicants respectfully submit that the grounds of rejection have been addressed and the rejection has been overcome. Reconsideration and withdrawal of the rejections to claims 1-14 is respectfully requested.

**New Claims**

Applicant has added new claims 15-17 to more fully protect the invention. They are

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believed patentable over the cited references. For example, claims 15 and 16 recite "the induction hardened area in the bottom portion of the mouth portion of said outer joint member is formed on a surface substantially perpendicular to the axial direction in which the stem portion extends". None of the cited references teaches or suggests such a feature.

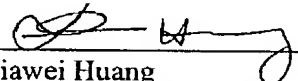
### CONCLUSION

For at least the foregoing reasons, it is believed that the pending claims 1-17 are in proper condition for allowance. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

Respectfully submitted,  
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